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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,819

11/15/2006

Edward Fuergut

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3080

25281

7590

05/20/2009

DICKE, BILLIG & CZAJA

FIFTH STREET TOWERS

100 SOUTH FIFTH STREET, SUITE 2250

MINNEAPOLIS, MN 55402

EXAMINER

LOUIE, WAI SING

ART UNIT

PAPER NUMBER

2814

MAIL DATE

DELIVERY MODE

05/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,819	Applicant(s) FUERGUT ET AL.	
	Examiner Wai-Sing Louie	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-19,32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-19,32 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/17/09 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 18-19 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fillion et al. (US 5,353,498) in view of Ohta et al. (US 6,379,998).

With regard to claims 14 and 32, Fillion et al. disclose an integrated circuit module (col. 4, line 65 et seq. and fig. 1) comprising:

- A chip 14 with an active region (col. 5, lines 19-23 and fig. 1d), conductor tracks 32 and contact areas 15 on the top side of the chip 14 (col. 8, lines 25-30 and fig. 1d);

- A plastic (polymer) plate 24, in which the chip 14 is embedded by its rear side and its edge sides, the active top side of the chip 14 together with a top side of the plastic plate 3 having an overall top side (col. 5, lines 60-62 and fig. 1d);
- A rewiring structure 32 with a rewiring layer having rewiring lines from the contact areas 15 to the external contact areas 29 of the chip 14, the rewiring structure being arranged on the overall top side (fig. 1d);
- Fillion et al. do not disclose the active top of the sensor chip and the plastic plate having a planar (flat) overall top side and flat rewiring. However, Ohta et al. disclose a sensor chip 33a is embedded in substrate 31, which the overall top side of the sensor 33a and the substrate 31 is co-planar (Ohta col. 19, lines 6-17 and fig. 26) and the rewiring is flat (see fig. 9 and fig. 28). Ohta et al. teach the substrate and the embedded chip forming a smooth flattening layer permitting the wiring be made easily (Ohta col. 24, lines 15-19). Therefore, it would have been obvious at the time the invention was made to modify Fillion's device with the teaching of Ohta et al. to provide a planar overall top side in order to facilitate wiring made on the sensor chip and the substrate. Fillion modified by Ohta et al. disclose a sensor chip (Ohta col. 3, lines 54-57).

With regard to claims 15-16 and 33, Fillion et al. disclose a semiconductor package in fig. 1e comprises a multiple chip (14 and 20) embedded in polymer (24), and an external contact 30 and 32 on the overall top side with rewiring extending in a (common) plane from the electrode areas 15 to the contact areas 30 and 32 (fig. 1e).

With regard to claim 17, Fillion et al. disclose the chips 14, 832, and 820 are embedded in a manner stacked one above the other in the plastic plate 24, 810, and 834, but do not disclose the sensor region forming a part of the overall top side. However, the location of part is considered as re-arrangement of parts. Rearrangement of parts was held to have been obvious for a person having ordinary skill in the art. In re Japikse 86 USPQ 70 (CCPA 1950).

Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fillion et al. (US 5,353,498) modified by Ohta et al. (US 6,379,998) as applied to claim 14 above, and further in view of Yamamoto et al. (US Pub. 2003/0094675).

With regard to claim 18, Fillion modified by Ohta et al. do not disclose a lens in the sensor region. However, Yamamoto et al. disclose the sensor region is radiation-sensitive and comprises a lens 7b (Yamamoto ¶ [0061] and fig. 1c). Yamamoto et al. teach the lens is used to connecting the optical center of the lens to the center of the photodiode section (Yamamoto ¶ [0019]). Thus, it would have been obvious at the time the invention was made to modify Fillion's device with the teaching of Ohta and Yamamoto et al. to provide a lens to connect the optical center of the lens to the center of the photodiode section.

With regard to claim 19, Fillion modified by Yamamoto et al. disclose the plastic plate 3 comprises a through contact 2, the through contact being connected to external contact areas on a plastic plate 3 rear side and electrically connected to the rewiring lines 8 on the overall top side (Yamamoto fig. 2).

Response to Arguments

Applicant's arguments with respect to claims 14-19 and 32-33 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai-Sing Louie whose telephone number is 571-272-1709. The examiner can normally be reached on 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wai-Sing Louie/
Primary Examiner, Art Unit 2814

Wsl
May 15, 2009.